

## Decommissioning and Demolition (D&D)

D&D is a major emphasis at the Savannah River Site. Under the Department of Energy's cleanup initiative, reducing the site footprint is a high priority.

By the end of the current contract, which extends through 2006, 240 buildings are scheduled to be demolished. Across the site, there are about 6,000 buildings, encompassing about 10 million square feet. D&D work is expected to continue until about 2025.

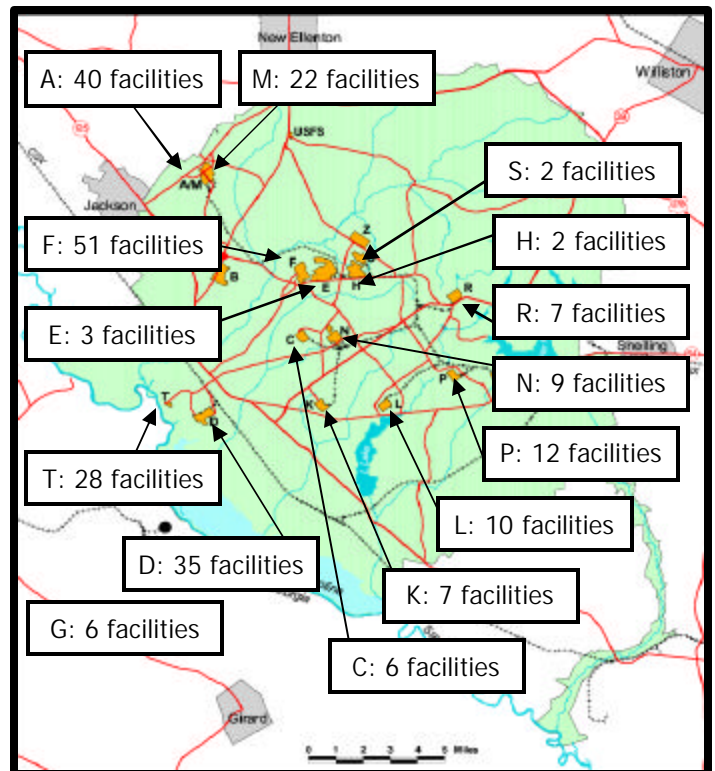
D&D does not necessarily mean demolition. For some buildings, a more sensible, safe solution is in-situ decommissioning, or entombment. The D&D process involves determining what the best end state is for any given facility, and achieving that end state in a safe, efficient manner.

### M Area

Historically, M Area was the beginning of the SRS production process. Here, facilities produced materials for use in SRS reactors. The only radiological contamination in the area comes from the uranium that was used to make reactor fuels. Other contamination comes from solvents that were used in the process. All operations have been shut down since the late 1980s.



M Area, as it looked in late 2005.



By the end of 2005, all 22 M Area buildings had been completed. Two A Area buildings were physically in the closure area, and these must be removed before M Area can be turned over for final cleanup. The final building is expected to be complete in April 2006.

### T Area

T Area, also known as TNX, is a research and development area built near the Savannah River in 1950. It was the site's oldest operational area.

Historically, equipment was brought to SRS by barge. The equipment was inspected and tested in T Area, then

## Facilities For D&D

Area	Planned in Contract Period	Completed through 2005	Total projected by end of contract
A	40	37	40
C	6	5	6
D	35	34	35
E	3	3	3
F	51	30	51
G	6	6	6
H	2	1	2
K	7	4	7
L	10	5	10
M	22	22	22
N	9	5	9
P	12	9	12
R	7	3	7
S	2	0	2
T	28	28	0
<b>Total</b>	<b>240</b>	<b>192</b>	<b>240</b>

sent on to other site areas for installation.

The TNX Area was an industrial facility where pilot-scale testing and chemical process evaluations were done to support fuel and target manufacturing, separations areas, chemical processes and the Defense Waste Processing Facility (DWPF). T Area was one of several heavy D&D emphasis areas because of its proximity to the Savannah River, near the edge of SRS.

Contamination in T Area comes from a small amount of uranyl nitrate, which poses no ultimate human health concerns; chlorinated volatile organic compounds, predominantly



T Area, as it appeared in late 2005. Final area closure is expected to be achieved in 2006.

trichloroethylene (TCE), tetrachloroethylene (PCE), and carbon tetrachloride; uranium; and radium-226. SRS, the U.S. Environmental Protection Agency (USEPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) have agreed to cleanup paths to be complete by the end of 2006.

All demolition in T Area is complete. Final area closure is scheduled by the end of 2006.



D Area, as it appeared in 2005. The circled building is the last remaining to be demolished

## D Area

D Area is located only a few hundred yards from T Area. The function of D Area's facilities was to extract heavy water from the Savannah River for use in SRS reactors.

Only one D Area building remains to be demolished, and it is expected to be complete by the end of 2006. D&D work in D Area consisted of 35 facilities, covering about 45,000 square feet.

The area also includes a power plant, which will remain in service.

Contamination in the area includes tritium and mercury, as well as the

results of operations of the coal-fired power plant, and nonhazardous materials such as metal, treated lumber, roofing materials, and asphalt paving materials.

## F Area

F Area, located near the center of SRS, is also an area of D&D focus. Facilities here operated for more than 50 years, and planned operations are now complete.

F Canyon is one of the site's two chemical separations areas. Historically, it extracted plutonium from spent nuclear fuel. FB Line refined the plutonium into buttons for the national defense. The facilities used a PUREX (plutonium and uranium extraction) process.

PUREX operations were completed in both facilities in 2002. Since operations concluded, work has been ongoing to close obsolete systems that haven't been used in decades, empty and flush vessels, demolish excess facilities, and wind up scheduled operations.

In FB Line, work concentrated on stabilizing and packaging plutonium materials for long-term storage,



The 709-F fire station is one of many support buildings in F Area that have been demolished.



F Canyon deactivation is nearly complete, with only underground tanks remaining to be finished.

under specific DOE standards. In early 2005, the last of the plutonium materials were removed from FB Line. By the end of the year, significant strides had been made in deactivation.

A major F Area undertaking is the 247-F Closure Project, in which a major radiological complex is being deactivated and demolished. The project was divided into manageable "zones," which were analyzed and cleaned out zone by zone. In 2005, deactivation was completed and demolition was begun.

247-F is comprised of five buildings, encompassing more than 124,000 square feet. Here, uranium stock was converted into a form suitable for Naval fuel. The facility operated from 1985-1989 and was shut down because its services were no longer needed.

In the remainder of F Area, 51 facilities are scheduled to be demolished by the end of 2006. These include facilities used for administration, operations support, storage and other support uses.

As of the end of 2005, 30 of these had been completed.

*Contributed by Fran Poda, WSRC Public Affairs*



The main building of the 247-F complex before demolition.



The 247-F complex at the end of 2005, near the end of demolition.